

REMARKS

Claims 1-30 are all the claims pending in the application of which claims 1, 13, 15, 27, 29 and 30 are independent. None of the claims are being amended.

Examiner Interview

Applicants thank the Examiner and his supervisor for courtesies extended to Applicants during a telephonic interview which took place on 2/7/2008. During the interview, the Examiner and his supervisor have agreed that the below arguments are persuasive and have indicated that the finality of the rejection will be withdrawn. Thus, Applicants this response under 37 C.F.R. 1.116 based on the arguments presented during said interview.

Claim Rejections – 35 U.S.C. 103(a)

The Examiner has rejected claims 1, 2, 4-13, 15, 16, 18-27 and 29-30 under 35 U.S.C. §103(a) as being allegedly unpatentable over Olive et al. (U.S. patent No. 5,790,978) in view of Phillips et al. (U.S. patent No. 6,249,761). Claims 3 and 17 are rejected as being allegedly unpatentable over Olive, in view of Philips and further in view of Polyani (U.S. Patent Application Publication No. 20020083104). Claims 14 and 28 are rejected as being allegedly unpatentable over Olive in view of Philips and further in view of Reed (U.S. patent No. 5,095,432). Applicants respectfully traverse these rejections in view of the following arguments.

Claims 1-12

Claim 1 recites in part (1) “determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized” and (2) “determining discourse functions in the output information the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis”

and a plurality of discourse functions.” (Emphasis added.) Applicants respectfully submit that the aforesaid features (1) and (2) are not taught or suggested by the cited references, whether taken alone or in combination.

The Office action cites to col. 1, lines 43-61 of Philips for the alleged teaching of “determining a theory of discourse analysis ...” and to the same passage of Philips for the alleged teaching of “determining discourse functions in the output information ...” (Office action, p. 3.)

Phillips et al. is directed to a speech recognition method and system. (Philips, Abstract.) The cited portion of Phillips et al. discloses that “A language model and a speech signal are input into a recognizer. A language model consists of, for example, one or more models of context dependent units having probability distributions associated therewith, models that map context dependent units to words, and models that map words to sentences.” (Philips, col. 1, lines 43-47, emphasis added.)

First, Philips merely describes what a language model includes. The cited passage of Philips describes inputting the language model and the speech signal without the claimed determining a theory of discourse analysis from among a plurality of theories of discourse analysis based on speech to be synthesized. While the language model of Philips consists of one or more models of context dependent units (acoustic realization of a phoneme), Philips does not teach or suggest selecting from among multiple such models. Therefore, the paragraph of Philips cited by the Examiner does not teach or suggest “determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized” of claim 1. (emphasis added.) The second cited reference, Olive et al., fails to remedy this deficiency of

Philips. Therefore, neither Olive et al. nor Philips, taken alone or in combination, teach or suggest the claimed “determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized” and, for this reason, claim 1 is patentable over Olive et al. and Phillips et al..

Second, again Phillips et al. merely lists the models that form the language model. The language model consists of models that map context dependent units to words and models that map words to sentences. But, according to the cited passage, Philips does not determine anything based on this mapping but rather uses the aforesaid mapping to form the models themselves. As such, this passage of Philips does not teach or suggest “determining discourse functions ... based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions” of claim 1. This provides an additional reason for patentability of claim 1 over Olive et al. and Phillips et al..

Third, the cited passage of Phillips et al. does not discuss “discourse functions” and rather discusses context dependent units that are defined as “an acoustic realization of a phoneme as manifested in a particular context” with the phoneme being defined as “the smallest unit of speech that differentiates utterances in a given language or dialect.” (Philips, col. 1, lines 15-25.) Finally, the language model of Philips is defined as “A language model maps these basis speech sounds into sentences.” (Id.) Further, as discussed in the response submitted to the previous Office action of October 26, 2007, Olive does not mention “discourse functions” either. Accordingly, Applicants submit that claim 1 is patentable over Olive and Philips taken alone or in combination.

Claims 2 and 4-12 depend from claim 1 and are believed to be patentable at least due to their dependence from patentable claim 1.

With respect to the Examiner's rejection of claims 2 and 4-12, while continuing to traverse the Examiner's characterization of the teaching of the references used in the rejection of these claims, Applicants respectfully submit that these claims are patentable by definition, by virtue of their dependence upon patentable claims 1.

With respect to claim 3, Applicants respectfully submit that the portions of Ployani, that are cited against the dependent claim 3, do not appear to cure the aforesaid deficiencies of Olive and Philips with respect to claim 1 and this claim is believed to remain patentable over all three references. Therefore, claim 3 is believed to be patentable at least due to its dependency from claim 1.

Claims 13 and 14

Claim 13 recites in part “determining discourse functions in the output information based on a contextually aware theory of discourse analysis using a mapping between basic discourse constituents of the contextually aware theory of discourse analysis and a plurality of discourse functions.” (Emphasis added.)

As discussed above, the cited passage of Philips does not teach determining anything based on mapping and rather teaches forming the models by mapping. Thus, this passage of Philips does not teach or suggest “determining discourse functions ... using a mapping between basic discourse constituents of the ... theory ... and a plurality of discourse functions” of claim 13 and this claim is believed to be patentable over Olive and Philips, taken alone or in combination. Cited portions of Reed do not cure the identified deficiencies of Olive and Philips

and claim 13 remains patentable over all three references, taken alone or in combination. Claim 14 depends from claim 13 and is believed to be patentable at least because of this dependence.

Claims 15-26

Claim 15 recites in part “determines a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized; determines discourse functions in the output information based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions; determines a model of discourse function level prosodic features.” (Emphasis added.)

As discussed above, the cited passage of Philips does not determine or select one model from among multiple models. As such, the cited prior art does not appear to teach or suggest “determines a theory of discourse analysis from a plurality of theories of discourse analysis” as recited in claim 15. Further, the cited portion of Philips only described forming models by mapping and does not appear to teach or suggest determining “discourse functions in the output information based on a mapping” of claim 15. Moreover, while Olive is cited for teaching of determining “a model of discourse function level prosodic features,” Olive does not mention such discourse functions.

Accordingly, claim 15 is believed to be patentable over Olive and Philips. Cited portions of Polyani do not cure the identified deficiency of Olive and Philips and claim 15 remains patentable over all three references, taken alone or in combination. Claims 16-26 depend from claim 15 and are believed to be patentable over these references at least because of their dependence from the patentable base claim 15.

Claims 27 and 28

As stated in detail above with respect to claim 1, neither Philips nor Olive mention discourse functions and the cited passages of Philips do not teach or suggest “a processor that determines discourse functions in the output information based on a context aware theory of discourse analysis using a mapping between basic discourse constituents of the contextually aware theory of discourse analysis and a plurality of discourse functions” of claim 27. As such, claim 27 is believed to be patentable over the cited references. Claim 28 is believed to be patentable at least for its dependence from the patentable claim 27.

Claim 29

As stated in detail above with respect to claim 1, neither Olive nor Philips appear to teach or suggest “instructions for determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized; instructions for determining output information; instructions for determining discourse functions in the output information, the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions” of claim 29. As such, claim 29 is believed to be patentable over the cited references.

Claim 30

As stated in detail above with respect to claim 1, neither Olive nor Philips appear to teach or suggest “determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized; determining output information; determining discourse functions in the output information, the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis


and a plurality of discourse functions” of claim 30. As such, claim 30 is believed to be patentable over the cited references.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Pavel I. Pogodin
Registration No. 48,205

SUGHRUE MION, PLLC
Telephone: (650) 625-8100
Facsimile: (650) 625-8110

WASHINGTON OFFICE

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